



Camino Real Regional Mobility Authority

EL PASO STREETCAR SCADA PROJECT

ADDENDUM #2

June 23, 2020

ADDENDUM #2
POSTED – JUNE 23, 2020

The above titled procurement is amended through this Addendum #2. **As required by the procurement, all addenda must be acknowledged on the Bid Proposal; failure to do so may be cause for rejection of bid.**

Contents:

Changes to Contract Documents

1. Revise Governing Specifications and Special Provisions:
 - Replaced page 26 to include Section 40 66 45 TRAINING.

2. Revise Technical Specifications:
 - Added pages 120-1 to 120-5, which includes SECTION 40 66 45 TRAINING.

[END OF ADDENDUM #2 – ATTACHMENTS BEGIN ON THE FOLLOWING PAGE]

ADDENDUM #2 JUNE 23, 2020

PROJECT: EL PASO STREETCAR SCADA
COUNTY: EL PASO

Camino Real Regional Mobility Authority (CRRMA) GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

TXDOT STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014. STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1L TO 9L INCL., GENERAL REQUIREMENTS

1L ABBREVIATIONS AND DEFINITIONS

2L INSTRUCTIONS TO BIDDERS

3L AWARD AND EXECUTION OF CONTRACT

4L SCOPE OF WORK

5L CONTROL OF THE WORK

6L CONTROL OF MATERIALS

7L LEGAL RELATIONS AND RESPONSIBILITIES

8L PROSECUTION AND PROGRESS

9L MEASUREMENT AND PAYMENT

SECTION 40 66 42 GENERAL

SECTION 34 21 32 SCADA SYSTEM

SECTION 40 66 43 WIRELESS NETWORK

SECTION 40 66 44 ADD-ALTERNATE WORK

SECTION 40 66 45 TRAINING

SECTION 40 66 45

TRAINING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section applies to Systems Work found in Specification Sections
 - 1. SECTION 40 66 42 GENERAL
 - 2. SECTION 34 21 32 SCADA SYSTEM
 - 3. SECTION 40 66 43 WIRELESS NETWORK
 - 4. SECTION 40 66 44 ADD-ALTERNATE WORK
- B. Requirements for instruction and training of Operations and Maintenance personnel in the management, operation, and maintenance of provided equipment and systems.

1.02 SUBMITTALS

- A. Submit a draft of the Training Materials and Instructor Guides three weeks before the start of training.
- B. Submit resumes of proposed instructor.
- C. Submit final version one week prior to the start of training.
- D. Submit Training Reports not later than 1 week after course completion.

1.03 QUALITY ASSURANCE

- A. Qualifications
 - 1. Instructors shall be fluent in English and experienced in the system for which they are conducting training.

PART 2 - PRODUCTS

2.01 TRAINING PROGRAM

- A. Design program to train the Owner's operations personnel in details of furnished SCADA equipment and system and enable them to operate, service, and maintain the system such that the SCADA system will perform and continue to perform in accordance with requirements of this Contract.
- B. Provide a logically related course sequence covering SCADA System Operation, Overall SCADA System Maintenance, and SCADA Equipment Operation and Maintenance.

C. Ensure operations personnel are fully trained prior to start of SCADA operations.

D. Operations Personnel Qualifications:

1. Assume personnel to be trained have only basic skills pertinent to their craft.
2. Assume Operations and Maintenance personnel to be trained have no knowledge of features of specific equipment or systems to be taught.

2.02 TRAINING COURSE

A. Course requirements:

1. Include classroom, hands-on, and/or field instruction, as appropriate, and models, mockups, documentation, and aids to carry out the program.
2. Class Sizes: Unless otherwise specified elsewhere in these Specifications, the Owner will be able to send up to 10 participants to each of the training courses specified.
3. Duration: Maximum 8 hours per day.
4. Training Location and Classrooms: Conduct training courses in facilities provided by the Owner. The facilities will be equipped with tables and chairs.
5. Provide video players and projectors as required.
6. Provide instructors who are fluent in English.
7. Provide literature and equipment necessary to train personnel.
8. Training on actual system equipment and spare equipment will be permitted; however, such use shall not interfere with operations.

B. Equipment Operations and Maintenance Training:

1. Provide training in the operation and maintenance of SCADA system.
2. Provide SCADA hardware training including, but not limited to:
 - a. Equipment operation.
 - b. Troubleshooting procedures, including field diagnostics and test equipment.
 - c. Interface with other equipment.
 - d. Preventative maintenance procedures.

ADDENDUM #2 JUNE 23, 2020

3. Provide Operations and Maintenance personnel with a thorough knowledge of the SCADA equipment and its operation, and its interface with other equipment.
4. Provide participants with theoretical background and hands-on experience in troubleshooting, repair procedures, and preventive maintenance procedures.
5. Enable Operations and Maintenance personnel to develop a self-sufficient SCADA hardware maintenance team for the equipment.

2.03 TRAINING MATERIALS

- A. Provide Owner-specific materials prepared specifically for use as training aids.
- B. Use reference manuals, operating and maintenance manuals, and user's manuals as supplementary training materials.
- C. Tailor principal documents used for training to reflect the SCADA equipment and specific user requirements.
- D. Provide each course participant copies of training manuals and other pertinent material prior to commencement of courses.
- E. The Owner will retain the master and two additional copies of training manuals and materials as reference documentation.
- F. Upon completion of the course, instructor's manuals, training manuals, and training aids become the property of the Owner.
- G. The Owner reserves the right to copy training materials and aids for use in Owner-conducted training courses.
- H. Videos:
 1. Do not use videos as a replacement for a classroom instructor, or as the primary training vehicle.
 2. The Owner shall have the right to videotape training courses presented by the Contractor. The Owner shall also have the right to use these videotapes to train personnel in the future.

2.04 INSTRUCTOR GUIDES

- A. Supply the following materials with the Instructor Guide:
 1. Microsoft PowerPoint presentation file on disk
 2. Slides, pictures, charts used in support of the lesson.
 3. One complete student handout package.

4. One copy of material referenced in the lesson.

B. The Instructor Guide shall be arranged in sections:

1. Section 1, Title: short and descriptive, must contain lesson name and target audience.
2. Section 2, Time to Teach: Designate estimated time to teach for the Instructor Guide, an approximate period that may vary due to student number and knowledge level.
3. Section 3, Objective: One or more performance-based objectives each of which specifies:
 - a. End-of-course performance expected of the student.
 - b. Conditions under which behavior will occur.
 - c. Measurable minimum level of performance considered acceptable.
4. Section 4, References: List sources of material presented, include maintenance manuals, test equipment manuals, and other documents developed for this Contract.
5. Section 5, Materials List: List materials needed to teach content, include training aids (such as overhead transparencies, charts, projectors, and size and type of facility), student handouts (such as books, drawings, and schematics), equipment (such as tools parts for disassembly).
6. Section 6, Introduction: Cover at least the following areas:
 - a. Introduction of subject covered by the lesson.
 - b. Lesson objectives.
 - c. An outline of the lesson.
 - d. A schedule of the lesson's activities.
7. Section 7, Presentation: Presentation should be in outline form, narrative is acceptable but not necessary.

C. Presentation portion of the Instructor Guide should be detailed enough to:

1. Serve as a written record of the specific facts and information.
2. Allow another instructor with knowledge of the area to teach the class.
3. Ensure that the subject delivery is consistent each time the lesson is given.
4. Allow replication of all evaluations, tests, and quizzes given in conjunction with this lesson.

- D. Use reference manuals, operating and maintenance manuals, and user's manuals as supplementary training materials.
- E. Tailor principal documents used for training to reflect the SCADA equipment and specific user requirements.

PART 3 - EXECUTION

3.01 TRAINING PROGRAM

- A. Design Grading system: Establish to report progress of each trainee during a course and identify requirements for further training for each participant.
- B. Training Reports
 - 1. Include graded tests (without names) with raw scores.
 - 2. Include a summary of the results of monitoring and evaluating.
 - 3. Include records of student attendance and performance.

END OF SECTION